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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.   | CONFIRMATION NO. |
|---|-------------|----------------------|-----------------------|------------------|
| 10/075,568  | 02/13/2002  | Kwang-Kyu Bang       | 8021-83 (SS-16184-US) | 9896             |
| 7590  | 12/31/2003  |                      | EXAMINER              |                  |
| Frank Chau, Esq.<br>F. CHAU & ASSOCIATES, LLP<br>1900 Hempstead Turnpike<br>East Meadow, NY 11554 |             |                      | NGUYEN, VIET Q        |                  |
|   |             |                      | ART UNIT              | PAPER NUMBER     |
|   |             |                      | 2818                  |                  |

DATE MAILED: 12/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                 |                      |
|------------------------------|-----------------|----------------------|
| <b>Office Action Summary</b> | Application No. | Applicant(s)         |
|                              | 10/075,568      | BANG ET AL. <i>W</i> |
|                              | Examiner        | Art Unit             |
|                              | Viet Q Nguyen   | 2818                 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on Response filed 10/22/03.

2a) This action is FINAL.      2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-15 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1-15 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. §§ 119 and 120

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some \* c) None of:  
1. Certified copies of the priority documents have been received.  
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

13) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) The translation of the foreign language provisional application has been received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

#### Attachment(s)

1) Notice of References Cited (PTO-892)      4) Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)      5) Notice of Informal Patent Application (PTO-152)

3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.      6) Other: \_\_\_\_\_

## DETAILED ACTION

1. In response to applicant's request for reconsideration, the two groups 1 and 2 are now rejoined, and all claims **1-15** are now present for examination.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims **1, 3-6, 10-11, 15** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims **1, 3-6, 10-11, 15** all contain the word "make-links" which seems vague and confusing of what structure it plies to? Does it imply the fuses or anti-fuses to be programmed as also described in the specification (on page 5, line 21-22 mentioning "fuses" as "make-links") ? Or does it imply the conductive segments (see Fig.4) or any selection transistor to be connected to such antifuses? (see Fig.1 and Fig.3).

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. **Claims 1-15** rejected under 35 U.S.C. 103(a) as being unpatentable over the applicant's prior art structure and disclosure as shown in **Fig.1**.

Claims 1-15, as far as the vague recited of the word "make-links" is concerned, are obviously suggested in the applicant's disclosed prior art Fig. 1 because Fig.1 already shown a fuse box (10) comprising a plurality of make-links (or so-called fuses F1-F24 as understood by the examiner due to unclear specification/disclosure). For replacing a defective bit/word line with a normal bit/word line, respectively. Further, its has been shown that the use of selection transistors 1-47 are used to selected the redundant fuse cell accordingly. And the bit/word line for selecting can be done by the use of redundant word line selecting circuit (4) in which there is also shown the use of an inverter (59), first NAND gate (61), second NAND gate (63), and a NOR gate (65) for performing a NOR operation as recited. Thus, all the recited features deem obvious suggested by Fig.1 structure. It would have been obvious from Fig.1 that such make-links also have two first and second end nodes with first end nodes connected to a plurality of selection transistors (1-47) as well.

6. **Claims 1-6, 10-11 and 15** are rejected under 35 U.S.C. 103(a) as being unpatentable over **McClure (5,265,054)**.

McClure (see Fig. 5) obviously shows a fuse box for replacing defective word/bit lines with normal word/bit lines through the use of "make-links" or antifuses (66) with the help of selection transistors (64), all having a source connected to the first end of one of

the make-links, and a plurality of nodes (at RIO down arrow points) connected to the second ends of such make-links.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Viet Q Nguyen whose telephone number is (703) 308-4897. The examiner can normally be reached on 7am-6pm (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on (703) 308-4910. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



Viet Q Nguyen  
Primary Examiner  
Art Unit 2818

  
V. Nguyen  
12/28/03